

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION
WASHINGTON, D.C. 20555

August 3, 1989

NRC BULLETIN NO. 88-10, SUPPLEMENT 1: NONCONFORMING MOLDED-CASE
CIRCUIT BREAKERS

Addressees:

All holders of operating licenses or construction permits for nuclear power reactors.

Purpose:

The purpose of this bulletin is to inform addressees that based on a preliminary review of responses to NRC Bulletin No. 88-10, the NRC staff has determined that many responses do not adequately satisfy the provisions of Bulletin No. 88-10 and that some addressees may need to take additional actions. This supplement also provides specific examples of common deficiencies identified during the preliminary review of responses.

Description of Circumstances:

NRC Bulletin No. 88-10 was issued on November 22, 1988, to request that addressees take actions to provide reasonable assurance that molded-case circuit breakers (CBs) purchased for use in safety-related applications perform their safety functions. In addition, the bulletin required that addressees submit certain information to the NRC regarding CBs that could not be traced to the circuit breaker manufacturer (CBM).

An NRC staff review of the written reports submitted by addressees in accordance with Bulletin No. 88-10 revealed several common deficiencies. In addition, the NRC staff has received requests for positions on specific issues that were not explicitly addressed in Bulletin No. 88-10. The NRC analyses and positions on these issues are provided in this supplement.

During the preparation of this supplement, the NRC received comments from the National Electrical Manufacturers Association (NEMA) and the Nuclear Management and Resources Council (NUMARC). NEMA reaffirmed its position that neither the tests delineated in Bulletin No. 88-10, a visual inspection, nor a combination of testing and inspection, are adequate to ensure the performance of non-traceable CBs. Similarly, NUMARC raised concerns about and advised against the use of nontraceable CBs from known refurbishers, regardless of whether

104R-11A

or not they have passed the tests delineated in Bulletin No. 88-10. However, the NRC judgement on the adequacy of bulletin testing to justify continued use of nontraceable CBs remains as stated in Bulletin No. 88-10.

NRC Positions:

1. If CBs are traceable to an original plant construction order and the CBs were received prior to August 1983, there is reasonable assurance that the CBs are acceptable and no additional traceability is required.
2. Visual inspection and physical examination of the CBs by the CBM is not considered adequate to meet the requested traceability provisions of Bulletin No. 88-10. Although visual inspection and physical examination by the CBM may provide a reasonable basis that the CBs have not been opened or altered in a substantial way, there is no reasonable assurance that the CBs have not been previously used or subjected to service conditions that may have adversely affected the performance capabilities of the CBs.
3. Item 4 of the actions requested in Bulletin No. 88-10 applies only to CBs that were purchased and installed after August 1, 1983.
4. If an addressee identifies any CBs as nontraceable during the review requested by Bulletin No. 88-10, it should take appropriate corrective actions as required by Criterion XVI of 10 CFR Part 50, Appendix B. As part of these corrective actions, the NRC expects addressees to assess the acceptability of all installed safety-related CBs that were procured under the same purchase orders as the nontraceable CBs.
5. In an effort to limit the number of nonconforming CBs in safety-related systems, nontraceable CBs that were installed or are being maintained as stored spares as of August 1, 1988, and that successfully pass all tests specified in Attachment 1 of Bulletin No. 88-10 are considered acceptable for use only as replacements for safety-related CBs that are found to be nontraceable during the review requested by Bulletin No. 88-10. These breakers may not be used as safety-related replacements during other activities such as planned plant modifications or routine maintenance.
6. For CBs stored as spares that were not procured directly from the CBM, each individual CB should be reviewed in order to establish proper traceability, regardless of the number of CBs.
7. All safety-related CBs from the same procurement order are considered traceable provided that 1) the order was procured directly from a CBM having a quality assurance program in accordance with 10 CFR Part 50, Appendix B, 2) the CBM has been audited by the addressee in accordance with Appendix B, 3) the CBs were ordered as safety-related, and 4) documented evidence has been furnished to the addressee, such as a

certificate of compliance. However, if safety-related CBs were procured from a vendor other than the CBM, a certificate of compliance by itself is not considered an adequate basis for establishing traceability. In such cases, traceability of individual procurement orders should be established through the review of procurement or shipping records back to the CBM. Telephone discussions with the CBM or vendor are not acceptable for establishing a basis for traceability. Traceability to a warehouse facility controlled by the CBM is considered equivalent to traceability to the CBM.

Actions Requested:

In response to the aforementioned circumstances, addressees are requested to perform the following actions within 90 days from the receipt of this bulletin:

1. Review written reports submitted to the NRC in accordance with Bulletin No. 88-10 and verify that the responses meet the bulletin provisions as clarified by this supplement.
2. Prepare and retain documentation for possible audit that indicates that item 1 of the actions requested has been performed as requested.

Reporting Requirements:

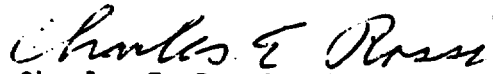
Addressees are required to provide a written report documenting any appropriate corrections to previous responses to Bulletin No. 88-10.

The NRC may conduct inspections at selected nuclear power plant sites in order to verify that issues associated with Bulletin No. 88-10, and as clarified by this supplement, have been adequately resolved.

The written reports required above shall be addressed to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, under oath or affirmation under the provisions of Section 182a, Atomic Energy Act of 1954, as amended. In addition, a copy shall be submitted to the appropriate Regional Administrator.

This request is covered by Office of Management and Budget Clearance Number 3150-0011, which expires December 31, 1989. The estimated burden hours, which includes the original bulletin requests, is 1,000 to 10,000 person-hours per plant response, including assessment of these requirements, searching data sources, testing, analyzing the data, and preparing the required reports. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Records and Reports Management Branch, Division of Information Support Services, Office of Information Resources Management, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555; and to the Paperwork Reduction Project (3150-0011), Office of Management and Budget, Washington, D.C. 20503.

If you have any questions regarding this matter, please contact one of the technical contacts listed below or the Regional Administrator of the appropriate NRC regional office.



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Attachment: List of Recently Issued NRC Bulletins

LIST OF RECENTLY ISSUED
 NRC BULLETINS

Bulletin No.	Subject	Date of Issuance	Issued to
89-02	Stress Corrosion Cracking of High-Hardness Type 410 Stainless Steel Internal Preloaded Bolting in Anchor Darling Model S350W Swing Check Valves or Valves of Similar Design	7/19/89	All holders of OLs or CPs for nuclear power reactors.
89-01	Failure of Westinghouse Steam Generator Tube Mechanical Plugs	5/15/89	All holders of OLs or CPs for PWRs.
88-08, Supplement 3	Thermal Stresses in Piping Connected to Reactor Coolant Systems	4/11/89	All holders of OLs or CPs for light-water-cooled nuclear power reactors.
88-07, Supplement 1	Power Oscillations in Boiling Water Reactors	12/30/88	All holders of OLs or CPs for BWRs.
88-11	Pressurizer Surge Line Thermal Stratification	12/20/88	All holders of OLs or CPs for PWRs.
88-10	Nonconforming Molded-Case Circuit Breakers	11/22/88	All holders of OLs or CPs for nuclear power reactors.
88-05, Supplement 2	Nonconforming Materials Supplied by Piping Supplies, Inc. at Folsom, New Jersey and West Jersey Manufacturing Company at Williamstown, New Jersey	8/3/88	All holders of OLs or CPs for nuclear power reactors.
88-08, Supplement 2	Thermal Stresses in Piping Connected to Reactor Coolant Systems	8/4/88	All holders of OLs or CPs for light-water-cooled nuclear power reactors.

OL = Operating License
 CP = Construction Permit